AMENDMENTS TO THE CLAIMS

The following listing of claims replaces all prior listings of claims in the present application.

What Is Claimed Is:

1. (currently amended) An active/standby switching system comprising two AAL2 (ATM Adaptation Layer Type 2) cell assembling/disassembling processor units (20, 30) as an active system and a standby system so that active/standby switching is carried out between the active system and said standby system;

the active/standby switching being carried out by transferring, from one of said AAL2 cell assembling/disassembling processor units which has been the active system to the other AAL2 cell assembling/disassembling processor unit which has been the standby system, handover information to prevent cell loss of AAL2 cells from occurring as a result of the active/standby switching and uncompleted cell data in the course of disassembling, said AAL2 cell assembling/disassembling processor unit to become a new active system receiving the handover information and the uncompleted cell data and carrying out AAL2 cell assembling or disassembling;

wherein the handover information includes at least one of an ATM connection information, a sequence number (SN), a short cell header, a short cell residual payload length, and a cross-header byte number across short cell headers.

2. (currently amended) An active/standby switching system ~~as claimed in claim 1~~, comprising two AAL2 (ATM Adaptation Layer Type 2) cell assembling/disassembling processor units (20,

30) as an active system and a standby system so that active/standby switching is carried out between the active system and said standby system;

the active/standby switching being carried out by transferring, from one of said ML2 cell assembling/disassembling processor units which has been the active system to the other AAL2 cell assembling/disassembling processor unit which has been the standby system, handover information to prevent cell loss of AAL2 cells from occurring as a result of the active/standby switching and uncompleted cell data in the course of disassembling, said AAL2 cell assembling/disassembling processor unit to become a new active system receiving the handover information and the uncompleted cell data and carrying out AAL2 cell assembling or disassembling;

and further comprising control means (40) for controlling said AAL2 cell assembling/disassembling processor units as the active system and the standby system;

each of said AAL2 cell assembling/disassembling processor units comprising:

storing means (22, 32) for passing, discarding, or storing an ATM cell supplied from an input/output line section (10);

ATM switching means (21, 31) which is for carrying out an ATM cell switching operation and which has said storing means;

AAL2 processing means (23, 33) for disassembling the AAL2 cell passing through said storing means or for assembling into the AAL2 cell; and

switching control means (24, 34) responsive to a request from said control means for controlling said ATM switching means, said storing means, and said AAL2 processing means.

3. (currently amended) An active/standby switching system as claimed in claim 2, wherein:

said switching control means in each of said AAL2 cell assembling/disassembling processor units as the active and the standby systems is responsive to the request from said control means and makes said storing means hold the ATM cell supplied from said input/output line section;

said switching control means in said AAL2 cell assembling/disassembling processor units as the active and the standby systems carrying out negotiation with each other to confirm that both of said AAL2 cell assembling/disassembling processor units as the active and the standby systems are in a switchable state;

said switching control means in said AAL2 cell assembling/disassembling processor unit as the active system confirming whether or not the uncompleted cell data in the course of disassembling are left in said AAL2 processing means and said ATM switching means by checking said AAL2 processing means and said ATM switching means in this order;

said switching control means in said AAL2 cell assembling/disassembling processor unit as the active system reading from said ATM switching means and said AAL2 processing means the handover information and, if the uncompleted cell data are left, the uncompleted cell data and transmitting the handover information and the uncompleted cell data to said switching control means in said AAL2 cell assembling/disassembling processor unit as the standby system;

said switching control means in said AAL2 cell assembling/disassembling processor unit as the standby system writing the handover information and the uncompleted cell data into said ATM switching means and said AAL2 processing means in said AAL2 cell assembling/ disassembling processor unit as the standby system corresponding to those in said AAL2 cell assembling/disassembling processor unit as the active system from which the handover information and the uncompleted cell data have been read;

said control means requesting, in response to a switching end notice from said switching control means in said AAL2 cell assembling/disassembling processor unit as a new active system after executing active/standby switching, said switching control means in said AAL2 cell assembling/disassembling processor units as the new active system and a new standby system to cancel cell holding;

said AAL2 cell assembling/disassembling processor unit as the new active system making said storing means cancel cell holding and sending the cell supplied from said input/output line section to said AAL processing means through said ATM switching means and said storing means to carry out assembling or disassembling of an AAL2 cell; and

said AAL2 cell assembling/disassembling processor unit as the new standby system making said storing means cancel cell holding and making said storing means discard the cell supplied from said input/output line section.

4. (original) An active/standby switching system as claimed in claim 2, wherein:

said switching control means in said AAL2 cell assembling/disassembling processor unit as the active system acquires VC-related information defined for each VC (Virtual Call), comprising a sequence number, a short cell header, a short cell residual payload length, and a cross-header byte number across short cell headers, from said AAL2 processing means with respect to all VCs accommodated in said AAL2 cell assembling/disassembling processor unit, acquires ATM connection information from said ATM switching means, and transfers the VC-related information and the ATM connection information as the handover information to said switching control means in said AAL2 cell assembling/disassembling processor unit as the standby system.

5. (currently amended) An active/standby switching method of carrying out active/standby switching between two AAL2 (ATM Adaptation Layer Type 2) cell assembling/disassembling processor units as an active system and a standby system;

the active/standby switching being carried out by transferring, from one of said AAL2 cell assembling/disassembling processor units which has been the active system to the other AAL2 cell assembling/disassembling processor unit which has been the standby system, handover information to prevent cell loss of AAL2 cells from occurring as a result of the active/standby switching and uncompleted cell data in the course of disassembling, said AAL2 cell assembling/disassembling processor unit to become a new active system receiving the handover information and the uncompleted cell data and carrying out AAL2 cell assembling or disassembling;

wherein the handover information includes at least one of an ATM connection information, a sequence number (SN), a short cell header, a short cell residual payload length, and a cross-header byte number across short cell headers.

6. (currently amended) An active/standby switching method ~~as claimed in claim 5,~~ of carrying out active/standby switching between two AAL2 (ATM Adaptation Layer Type 2) cell assembling/disassembling processor units as an active system and a standby system;

the active/standby switching being carried out by transferring, from one of said AAL2 cell assembling/disassembling processor units which has been the active system to the other AAL2 cell assembling/disassembling processor unit which has been the standby system, handover information to prevent cell loss of AAL2 cells from occurring as a result of the

active/standby switching and uncompleted cell data in the course of disassembling, said AAL2 cell assembling/disassembling processor unit to become a new active system receiving the handover information and the uncompleted cell data and carrying out AAL2 cell assembling or disassembling;

the method comprising the steps of:

an ATM cell holding step of making an ATM cell supplied from an input/output line section be held in a storing section in both of said AAL2 cell assembling/disassembling processor units as the active and the standby systems;

a first confirming step of confirming, through negotiation between said AAL2 cell assembling/disassembling processor units as the active and the standby systems, that both of the active and the standby systems are in a switchable state;

a second confirming step of confirming, in said AAL2 cell assembling/disassembling processor unit as the active system, whether or not the uncompleted cell data in the course of disassembling are left in an ~~ALL2~~AAL2 processing section for assembling or disassembling the AAL2 cell and an ATM switching section for carrying out an ATM cell switching operation and having said storing section by checking said ~~ALL2~~AAL2 processing section and said ATM switching section in this order;

a handover information reading step of reading, in said AAL2 cell assembling/ disassembling processor unit as the active system, handover information and, if the uncompleted cell data are left, the uncompleted cell data and transmitting the handover information and the uncompleted cell data to said AAL2 cell assembling/disassembling processor unit as the standby system;

a handover information writing step of writing, in said AAL2 cell assembling/ disassembling processor unit as the standby system, the handover information and the uncompleted cell data into said ATM switching section and said AAL2 processing ~~section in said~~section in said AAL2 cell assembling/disassembling processor unit as the standby system corresponding to those in said AAL2 cell assembling/disassembling processor unit as the active system from which the handover information and the uncompleted cell data have been read; and

a cell holding canceling step of canceling, after executing active/standby switching, cell holding in response to a switching end notice from said AAL2 cell assembling/disassembling processor unit as a new active system;

said AAL2 cell assembling/disassembling processor unit as the new active system making said storing section cancel cell holding and sending the cell supplied from an input/output line section to said AAL processing section through said ATM switching section and said storing section to carry out assembling or disassembling of an AAL2 cell; and

said AAL2 cell assembling/disassembling processor unit as a new standby system making said storing section cancel cell holding and making said storing section discard the cell supplied from said input/output line section.

7. **(original)** An active/standby switching method as claimed in claim 6, wherein:

said AAL2 cell assembling/disassembling processor unit as the active system acquires VC-related information defined for each VC (Virtual Call), comprising a sequence number, a short cell header, a short cell residual payload length, and a cross-header byte number across short cell headers, from said AAL2 processing section with respect to all VCs accommodated in said AAL2 cell assembling/disassembling processor unit, acquires ATM connection information

from said ATM switching section, and transfers the VC-related information and the ATM connection information as the handover information to said AAL2 cell assembling/disassembling processor unit as the standby system.